

## CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING

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February 24, 2014

To:

Senator Beth Bye, Co-Chair, Appropriations Committee

Representative Toni E. Walker, Co-Chair, Appropriations Committee

Senator Robert J. Kane, Ranking Member, Appropriations Committee

Representative Craig A. Miner, Ranking Member, Appropriations Committee

Senator Joseph Crisco, Co-Chair, Legislative Sub-Committee, Appropriations Committee

Representative Matt Lesser, Co-Chair, Legislative Sub-Committee, Appropriations Committee

REF: FY15 FUNDING REQUEST

Please find attached the following regarding the Connecticut Academy of Science and Engineering's FY15 funding request presented to the Appropriations Committee on February 24, 2014:

- ◆ Testimony
- ◆ Funding Request
- ◆ Connecticut Academy of Science and Engineering: An Overview

Thank you for your time and consideration.

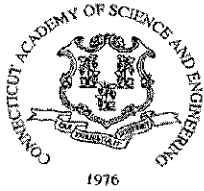
Best Regards,

Richard H. Strauss

Executive Director

Email: [rstrauss@ctcase.org](mailto:rstrauss@ctcase.org)

cc: Members of the Legislative Management Sub-Committee of the Appropriations Committee



## CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING

### TESTIMONY OF THE CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING BEFORE THE APPROPRIATIONS COMMITTEE OF THE CONNECTICUT GENERAL ASSEMBLY: FEBRUARY 24, 2014

Senator Bye, Representative Walker and members of the committee, my name is Rick Strauss; I am the Executive Director of the Connecticut Academy of Science and Engineering (CASE). On behalf of the Academy and its membership, it is requested that the General Assembly consider funding for CASE to continue work on current projects and to conduct new in-depth studies on science and technology issues on behalf of the General Assembly for FY15:

- To conduct a study for the General Assembly in FY15 on a topic to be determined, including authorization for a carryover of any unexpended FY15 funds into the FY16 budget to complete work on this study if not completed by the FY15 fiscal processing deadline date.
- For a carryover of unexpended FY14 funds into the FY15 budget for the Family Violence in Connecticut Study (*contracting is currently in-process*) to complete work on this study if not completed by the FY14 fiscal processing deadline date; and for additional FY15 funding needed to fully fund this study.
- For a carryover of FY14 of unexpended funds into the FY15 budget of funding designated for an Early Childhood Regression Discontinuity (or other relevant/appropriate research methodology) Study that is expected to begin in the Spring 2014, including authorization for a carryover of unexpended funds if the study is not completed by the FY15 fiscal processing deadline date, into the FY16 budget to complete this study. (*Note: discussions are in-process to begin work on this study in FY14*)

The Academy is a non-profit organization patterned after the National Academy of Sciences and created by special act of the General Assembly in 1976 to provide expert guidance on science and technology to the people and to the state of Connecticut. Our membership is comprised of 330 of Connecticut's most esteemed scientists, physicians, and engineers elected by the membership of the Academy.

Since 1976, the Academy has completed approximately 90 studies on a variety of issues, on behalf of the General Assembly and state agencies. The Academy's convening authority enables us to have access to a wide range of independent expertise from technical experts from Connecticut and across the nation to address issues of concern to Connecticut. We are able to provide perspectives that are not bound by organizational structure and culture. Many of the Academy's projects have and will continue to provide the General Assembly and state agencies with guidance and advice regarding issues about which they may not be knowledgeable. Additionally, our projects seek to provide third party independent review for verification and confirmation of proposed solutions for guidance to create better policy and law. Members of the Academy and others from Connecticut and around the nation serve on our study committees on a pro-bono basis offering their expertise to help develop recommendations and solutions to pressing scientific and technical matters.

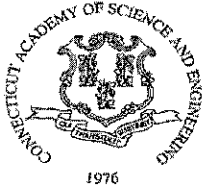
For the new study proposed for FY15, the Academy will engage in a consultative process for the selection of a study topic with the leadership of committees of the General Assembly. CASE will identify a timely topic of high interest to the General Assembly. The work of General Assembly committees throughout the legislative session will provide the foundation for discussion of potential topics. The selected study will be overseen by leadership of committees with cognizance over the study subject. For contracting purposes, the projects will be administered by the Office of Legislative Management.

A copy the Academy's funding request and CASE backup information including a summary of recent CASE studies conducted for the General Assembly, state agencies and others is attached.

Thank you for your time and consideration.

Respectfully Submitted,

Richard H. Strauss  
Executive Director  
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# CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING

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## CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING FUNDING REQUEST FOR FY15

### *PROVIDING A UNIQUE VALUE-ADDED SERVICE TO THE GENERAL ASSEMBLY*

**Purpose:** *Provide objective, scientific and technical support to assist the General Assembly in their legislative mission.* Many public policy issues today have strong and, often, complex technical components that need to be carefully understood in crafting effective legislative initiatives. An important need for General Assembly members is their ability to obtain objective, non-advocacy advice on technically complicated issues impacting the development of policies and law. The Connecticut Academy of Science and Engineering (CASE), founded in 1976 by act of the General Assembly, has legislatively mandated convening authority, expertise, and 38 years of experience in providing expert, third party, objective perspectives and information to the General Assembly, state agencies and others.

### **PROPOSED GENERAL ASSEMBLY ACTION:**

*For budgeting and administrative purposes, contracting will be provided through the Office of Legislative Management; with content-related project oversight provided through the committee(s) with cognizance.*

1. **FY15 BUDGET: RETAIN \$100,000** in funding as provided for in the adopted FY14/FY15 budget (PA 13-184, Section 1; Legislative; Legislative Management) and the Governor's proposed FY15 budget for the following.

#### **A. Annual CASE Study:**

- **RETAIN \$100,000** for CASE to conduct a study on a topic to be determined for the General Assembly; and
- **CARRYOVER:** Provide that any unexpended balance of funds appropriated to Legislative Management, for Connecticut Academy of Science and Engineering for this study, on a topic to be determined, for the fiscal year ending June 30, 2015, shall not lapse on said date, and such funds shall continue to be available, during the fiscal year ending June 30, 2016.
  - *It is expected that this funding, pending project scoping, will be adequate to conduct one study.*
  - *A consultative process will be utilized to select the study topic. The topic selected for study will be based upon issues of interest to the committees of the General Assembly. This will help assure that the selected topic is of high interest, timely, and worthy of General Assembly funding. Potential topics will be identified through discussions with General Assembly committee leadership and others. CASE will prioritize and propose the selected study topic for contracting.*
  - *Leadership of the committees of cognizance on the study topic will have an opportunity to review and provide feedback on the study's scope of work.*

**2. FY 14 CARRYOVER OF UNEXPENDED FUNDS AND ADDITIONAL FUNDING FOR CURRENT STUDY**

- A. **Family Violence in Connecticut Study (CARRYOVER & ADDITIONAL FUNDING)**: This study was selected as the project to be conducted for the General Assembly with partial funding, \$100,000, provided for in the adopted FY14 budget (PA 13-184, Section 1; Legislative; Legislative Management). Currently contracting for this study is in process. The committee of cognizance for the study is the Public Health Committee. Total study cost is \$139,150. Therefore, the following is requested. A carryover of unexpended FY14 funding and additional FY15 funding is requested, as follows:

- **CARRYOVER**: Provide that any unexpended balance of funds appropriated to Legislative Management, for Connecticut Academy of Science and Engineering for the study on Family Violence in Connecticut, for the fiscal year ending June 30, 2014, shall not lapse on said date, and such funds shall continue to be available, during the fiscal year ending June 30, 2015.
- **ADDITIONAL FY15 FUNDING REQUESTED – \$39,150**: Total cost of this study is \$139,150. The FY14 contract for this study will be funded with the \$100,000 available in the FY14 budget. Therefore, additional funding of \$39,150 is requested for funding the remaining work scope tasks for this study.

- B. **Early Childhood Regression Discontinuity (or other relevant/appropriate research methodology) Study (CARRYOVER)**: \$400,000 was provided for this study to be conducted for the General Assembly in the adopted FY14 budget (PA 13-184, Section 1; Legislative; Legislative Management). See Connecticut Academy of Science and Engineering line item, \$500,000, with \$100,000 intended for an annual CASE study to be determined and \$400,000 being for the Early Childhood Study. Reference to funding for this study is in HB-6359; File Copy 676 that was not adopted by the General Assembly in 2013. However, discussions with the Office of Early Childhood and the leadership of the General Assembly to have CASE begin work on this study in FY14 are in process. If a contract for services for this study is issued in FY14, the study effort will need to continue into FY15. Additionally, if the study does not begin until FY15, then a carryover of unexpended funds into FY16 will be needed. Therefore, a carryover of unexpended FY14 funding for this study is requested as follows:

- **CARRYOVER**: Provide that any unexpended balance of funds appropriated to Legislative Management, for Connecticut Academy of Science and Engineering for the Early Childhood Regression Discontinuity (or other relevant/appropriate research methodology) Study, for the fiscal year ending June 30, 2014, shall not lapse on said date, and such funds shall continue to be available, during the fiscal year ending June 30, 2016.

# CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING: *AN OVERVIEW*

## **Background:**

The Connecticut Academy of Science and Engineering is a non-profit institution patterned after the National Academies that was created in 1976 by Special Act of the General Assembly. The Academy's membership is limited to 400 distinguished Connecticut scientists, physicians, and engineers that are elected by its membership. Current membership is at 330. The Academy's legislatively mandated mission is to provide expert guidance on science and technology to the people and to the state of Connecticut, and promote the application of science and technology to human welfare and economic well-being by:

- Advising government leaders
- Strengthening Connecticut's student science and technology programs
- Informing Connecticut's citizenry on science and technology topics

## **The Academy's Added-Value:**

For 38 years, the Academy has provided the state with a readily available resource for timely access to sound objective technical advice, guidance and leadership. During this period, the Academy has performed over 90 in-depth studies for the Connecticut General Assembly and/or state agencies—many of which have resulted in either policy or law changes. The Academy's convening authority allows it to engage the best technical experts from Connecticut, across the nation to address issues of concern to Connecticut.

## **Sample Recent Activities:**

### ➤ *In-Process Studies and Projects*

- ◆ **General Assembly: Disparity Study – Phase 2**
- ◆ **General Assembly: Family Violence in Connecticut (pending contracting)**
- ◆ DPH and the Connecticut Stem Cell Research Advisory Committee (SCRAC) – Responsible for managing and overseeing the CT Stem Cell Research Program's Peer Review Process
- ◆ DPH: Biomedical Research Program Analysis of Key Accomplishments
- ◆ ConnDOT: Energy Efficiency and Reliability for Rail Facilities/Operations
- ◆ Albertus Magnus College (on behalf of the Office of Higher Education): External Evaluation of Project CCSS (Common Core State Standards)
- ◆ Connecticut Medals of Science and Technology – responsible for selection of the Medal winners (on behalf of Office of Higher Education)
- ◆ Hartford Courant: Partner in producing Science Matters series for the Courant's Newspapers in Education Program
- ◆ Academy Bulletin – published quarterly

### ➤ *Completed Studies*

- ◆ **General Assembly: Disparity Study - Phase 1 (2013)**
- ◆ **General Assembly: Health Impact Assessments (2013)**
- ◆ DPH and the Connecticut Stem Cell Research Advisory Committee (SCRAC) – Responsible for managing and overseeing the CT Stem Cell Research Program's Peer Review Process (2013, 2012)
- ◆ ConnDOT: Economic Value of Transportation Projects (2013)
- ◆ DPH & Connecticut Innovations: Stem Cell Research Program Accomplishments (2013)
- ◆ **General Assembly: Workforce Alignment Study ("Strategies for Evaluating the Effectiveness of Programs and Resources for Assuring Connecticut's Skilled Workforce meets the Needs of Business and Industry Today and in the Future") (2012)**
- ◆ ConnDOT: Benchmarking Connecticut's Transportation Infrastructure Capital Program with Other States (2012)
- ◆ ConnDOT: Alternative Methods for Safety Analysis and Intervention for Use by ConnDOT for Contracting Vehicles and Drivers for Transportation Projects and Services (2012)
- ◆ Office of Consumer Counsel/PURA: Guidelines for the Development of a Strategic Plan for Accessibility to and Adoption of Broadband Services in Connecticut (2011)
- ◆ CEAB: Advances in Nuclear Power Technology (2011)
- ◆ OPM: Energy Emergency Assurance Planning, Capabilities and Resources – A multi-year project funded by the U.S. Department of Energy that involved assisting OPM's Energy Office (DEEP as of 7/1/12) in revising the state's Energy Assurance Plan (formerly Energy Emergency Preparedness Plan), developing an energy supply disruption tracking process, participating in an interstate energy emergency exercise and planning for an intrastate exercise
- ◆ ConnDOT: Environmental Mitigation Alternatives for Transportation Projects (2010)

## CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING: *AN OVERVIEW*

- ◆ ConnDOT: Design-Build: A Transportation Project Methodology for Connecticut's Consideration (2010)
- ◆ CEAB: Feasibility of Utilizing Waste Heat from Power Plants for a Useful Purpose (2009)
- ◆ **General Assembly: Independent Monitor – Implementation of UCHC Study Recommendations (2008/2009)**
- ◆ **CT Clean Energy Fund on behalf of the General Assembly: Preparing for Connecticut's Energy Future (2009)**
- ◆ **General Assembly: A Needs Based Analysis of the UCHC Facilities Plan (2008)**
- ◆ ConnDOT: Weigh Station Technologies and Practices(2008)
- ◆ ConnDOT: Applying Transportation Asset Management in Connecticut (2008)
- ◆ OPM: Development of a Real-Time Energy Report - to encourage energy conservation (2008)
- ◆ **ConnDOT on behalf of the General Assembly: The Feasibility of Utilizing Fuel Cells to Generate Power for the New Haven Rail Line (2007)**
- ◆ DPH/Stem Cell Research Advisory Committee: Guidelines for Developing a Strategic Plan for Connecticut's Stem Cell Research Program (2007)
- ◆ **General Assembly: Energy Alternatives and Conservation (2006)**
- ◆ **General Assembly: Evaluating the Impact of Supplementary STEM Educational Programs (2006)**
- ◆ **General Assembly: Advanced Communications Technologies (2006)**
- **Technical Reviews and Assessments**
  - ◆ DEEP: Peer Review of CL&P/UConn Reports on Energy Reliability for Critical Facilities
  - ◆ DPH: Biomedical Grant Proposal Review Project – *Assistance to DPH for the review of research grant proposals in the fields of heart disease and cancer, as well as other tobacco-related diseases. Funding for this grant program is provided through the state's Tobacco Fund* (2013, 2012, 2011, 2010, 2009)
  - ◆ DEP/DPH/UCHC/CT Agricultural Experiment Station: Peer Review of the state's "Evaluation of the Health and Environmental Impacts Associated with Synthetic Turf Playing Fields Study" (2010)
  - ◆ Clean Energy Fund: Hydro Tidal Turbine Technology Proposal Review (2008); Solar Thermal Technology Proposal Review (2007); Low-Head Hydro Power Proposal Review (2007)
  - ◆ Connecticut Innovations: Extended-Life Oil Filter Technical Review (2007)
  - ◆ Connecticut Center for Advanced Technology: Review Draft Fuel Cell/Hydrogen Economic Development Plan (2007)
- **Strengthen Connecticut's Student Science and Technology Programs:**
  - ◆ Celebrating the achievements of young scientists and engineers through the Academy's Annual Student Awards Program
  - ◆ Serving on executive advisory boards for: CT FIRST; Connecticut Junior Science and Humanities Symposium; and Connecticut Association for Mathematically Precocious Youth. Also, serving as a member of the advisory board for the University High School of Science and Engineering; Connecticut Girls Collaborative Leadership Team
  - ◆ Assisted the Stepping Stones Museum for Children in the development of a new Energy Exhibit that will be, as well as the development of a related traveling Energy Exhibit for use in schools around the state and at the One Thing Energy Exposition in the Fall 2008.
  - ◆ Conducted exciting science pilot programs on behalf of Connecticut Science Center and the Connecticut Department of Education; Westinghouse Electric Company; Connecticut Career Choices (Office for Workforce Competitiveness)

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